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Spindrift

...Scavenging The Graphic Arts Industry Since April 2003

News Focus • Opinion
Reviews • Techno-Babble
Attitude

Volume 5, Number 7
6th November, 2007

green • *adjective* **1** of the colour between blue and yellow in the spectrum; coloured like grass. **2** covered with grass or other vegetation. **3** (Green) concerned with or supporting protection of the environment.

– From the Compact Oxford English Dictionary

Dear Reader,

It's in danger of becoming so trendy that it's annoying, but the recent greening of business and industry is long overdue. While other industries such as aerospace and pharmaceuticals have placed environmental awareness high on their agendas, the printing industry has been rather more shy. This is unfortunate and a potentially very serious problem, because the charge of environmental malignancy is one that the industry will struggle to shake off. More seriously once people start to turn away from print to embrace the digital media alternative, its use will fast become a habit, to print's long term cost.

Printing associations around the world have been surprisingly reticent in their efforts to promote print as a greener alternative to electronic delivery. Not only can print be a more effective medium in the first instance, but it often gets re-used, sometimes over many years. Electronic media in contrast, are viewed only as often as necessary; there is no long, lazy browsing for the sheer pleasure of looking at beautiful colours and elegant layout. And when print does finally get chucked, it can be recycled. Digital delivery devices cannot be recycled, nor can they be re-used indefinitely as data formats are wont to change over time.

There are many more reasons why print should be the eco-friendly medium of choice for important messages, but the process of identifying and defining them and proving print's credentials in the digital media landscape is complicated. This is probably why so little has been heard from industry associations but it has to change. So we are embarking on a series of research projects to quantify print's environmental impact. We'll have more details in the new year, but if you've any questions in the meantime, or you'd like to be involved, please contact us.

Enjoy!

Laurel, Nesson, Paul and Todd

In This Issue

The Owl and Minerva

Laurel Brunner visited Fujifilm's Advanced Research Laboratories in Japan to learn more about Fujifilm's grand plan, including its overall approach to product development, as well as its relationship with Fuji Xerox and its various environmental initiatives.

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The MultiCopy Story

MultiCopy has become one of the most successful franchising groups in the printing business. Laurel Brunner visited its Amsterdam headquarters and took a look at both the MultiCopy business model and the brand new Canon Imagepress 7000 which has just been installed there.

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More than Waltzing & Wiener schnitzel?

This year's IfraExpo took place in Vienna, giving Laurel Brunner and Paul Lindstrom the perfect excuse to sample the various pastries on offer. Fortunately for us they also found time to wander the halls and check out the latest developments in the newspaper industry. This month they've covered the workflow and production aspects, and will look at the role of the Internet in next month's Spindrift.

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News Focus

After months of whispering and rumour **Xerox** has finally announced its colour continuous feed press. The device uses dry toner, xerographic imaging and flash-fusing technology to print on a wider array of substrates than competitive systems. The Xerox 490/980 prints 600dpi and maintains its top speed of 69 metres per minute.

It is available immediately in Japan, China and the Pacific Rim and will be available in Europe during the first half of 2008. It has been in beta testing in mainland Europe during 2007 producing a range of retail and catalogue work. In North America and other developing markets the 490/980 will be phased-in based on customer demand. The price is approximately \$1.8m per engine.

RealVue3D, **FFEI's** impressive 3D visual simulation software for print media, is now available. Created to streamline communication and sales for designers, advertising agencies, publishers and their clients, RealVue3D technology creates a platform independent Java file. Users can view complete print documents, turn pages, change viewing angles and zoom into details. RealView 3D simulates viewing conditions and print characteristics based on variables such as stock weight, finish and texture.

The Ghent PDF Workgroup (GWG) has released new updates to its PDF/X- 3 PLUS specification series. The updates are now available for immediate use and downloading at no charge at the GWG web site (www.gwg.org).

Agfa Graphics is working with **Technique Group** to provide an integrated solution combining Agfa's Delano project management portal and the ApogeeX range of Prepress Products, with Technique's modular MIS. This fully JDF/JMF-based system provides the benefits of complete job automation and control, from job creation to delivery of the final product. It will be available at the end of the year for the UK and North American markets and should enable Agfa to combine the MIS product portfolio and skills from Technique, with its own prepress and project management products and skills.

Mutoh's new high-performance, variable drop, solvent Blizzard series of printers is now available. The Blizzard 65 and Blizzard 90 have printing widths of 1640mm and 2230mm respectively and print from 40 m²/h to 80m²/h, depending on quality demands, and are suitable for both indoor and durable outdoor applications. The Blizzard series prints onto a wide range of coated and uncoated substrates, including vinyl, banner and soft signage and is designed for small sign makers and larger operations.

The printers include Mutoh's revolutionary i² Intelligent Interweaving print technology which lays down ink in optimised wave forms, rather than straight lines as other wide-format printers do. The technique allows high-speed, bi-directional printing of all images and drastically reduces or even eliminates horizontal banding, step mismatch banding and ink mottle.

Inca Digital has launched a new model of the Columbia Turbo. The Plus version is available for immediate delivery and has two additional print modules, bringing the total number of print heads to 96 compared to 64 on a four-colour Columbia Turbo. These extra heads make it possible to print white or two additional colours: light cyan and light magenta as well as green, orange or violet. In all other respects the Columbia Turbo Plus is the same.

HP has set up a series of relationships and print capabilities with several major websites: Disney.com, Windows Live Spaces, Flickr and the Graffiti Application for Face-

Spindrift

ISSN 1741-9859

A very special newsletter for Graphic Arts, Prepress, Printing & Publishing Professionals, published monthly (sort of) by:

Digital Dots Ltd

The Clock Tower • Southover • Spring Lane

Burwash • East Sussex • TN19 7JB • UK

Tel: (44) (0)1435 883565

Subscriptions:

Spindrift is a digital only publication, distributed in Adobe .pdf format. A ten issue subscription (our version of a year) costs €190 and can be obtained by going to www.digitaldots.org and subscribing. We strongly suggest doing this as it is the only way to legally obtain this publication and we know you all want to be legal, especially at this sort of price. Discount multiple subs are available. If you're undecided and require some high-powered sales encouragement, ring Laurel at the number above.

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book. The idea is to simplify printing of web content and is part of HP's 2.0 strategy, which offers Internet users new and enhanced printing options. In September alone these partners' sites had over 267 million visitors.

To capitalise on these audiences' possible print inclinations HP is using Web 2.0 technologies to enable print output and encourage web-to-print applications. Also using Web 2.0 technologies, HP has set up a collaborative on-line forum for print service providers in the sign and display markets from Europe, the Middle East and Africa. The forum, for up to 300 participants, allows people to meet with HP experts and other users to share knowledge and best practice.

In a separate announcement the company also stated that it has improved manufacturing processes for HP Indigo ElectroInks for better yields in productivity and energy efficiency. Two HP ElectroInk manufacturing facilities have implemented a new particle grinding process, reducing energy consumption by up to 40 percent in ink manufacture.

According to research organisation Infosource, in the first half of 2007 **Canon** has overtaken Epson to take second position in the large format market, with sales up by 188% in the first half of the year. The company had the best selling products in various sectors and doubled its market share over a twelve month period to 18.7%.

Goss International is developing the world's first 96-page web offset press based on its Sunday press platform used for newspaper printing. The development project is a joint effort with commercial printer Grafiche Mazzucchelli in Italy and the press will be installed in late 2008. Grafiche Mazzucchelli is pursuing this groundbreaking project in the hope that it will give the company a means of differentiating itself and adding value in the marketplace.

Goss has also expanded its range of double-circumference commercial web press options. Imprenta Ajusco in Mexico City will be the first to install the new press in 2008.

Océ's results for the Q3 2007 revealed revenues of €753.5m, and growth of 5.1% with sales of printing systems up by 17.9%. Growth in color has been strong according to Océ and gross margins show a slight increase from 40.4% to 40.7%. The company expects an operating income for the year of at least €110m.

At IfraExpo **Agfa Graphics** introduced its Arkitex Core 6.0 workflow system and N92v plates which will be available next year. See the feature on IfraExpo for further details

EskoArtwork has updated several of its software products with Odystar 3.0, Neo 1.2 and WebWay 5.0. Odystar 3.0 is compliant with the latest 7.2 version of PitStop; JDF/JMF connectivity has been significantly improved with greater flexibility in how digital job information is held within an MIS. The user interface has been updated as have several Odystar modules. The Receive utility can now accept data through FTP or by email and Route can send files to different workflow steps depending on the file's XMP metadata.

The new version of Neo 1.2 for PDF editing is compliant with version 7.2 of PitStop and has improved interactive trapping tools, new viewing features, and will highlight overprints, transparencies, traps, breakouts and ink usage by percentage.

WebWay 5.0 for PC and MacIntel platforms now has extended colour management facilities, improved file uploads and downloads, Java Web Start support and greater traceability. A new approval chain feature allows different groups of people to approve jobs in the correct sequence and WebWay 5.0 now has Microsoft Vista and IE7 functionality.

NiXPS is a developer of cross-platform technologies for Microsoft's XPS format. The company has announced the availability of NiXPS 1.5, the first application to offer XPS viewing capabilities for Mac users. It is based on NiXPS core library which is also available for developers, and offers a wide range of XPS editing and rendering capabilities.

In cooperation with the Digital Imaging Customer Exchange (DICE), **Presstek** has announced a new membership segment of the exchange for users of its direct imaging digital offset presses. It is giving all customers, both of Presstek and its OEM partners, a one year free membership to DICE. The group is an independent users organisation for owners of high-end digital color presses and Presstek DI is the fourth vendor in addition to HP Indigo, Kodak NexPress, and higher end Xerox color production devices supported by DICE members.

▼ **Sun Chemical** has raised the price of ink in Europe by 6 to 12%, depending on the product. The increase is due to steady and continued increases in raw material prices and the shortage of many key ingredients, primarily for pigment manufacturing. The increases, effective immediately, cover Sun Chemical's complete portfolio and apply to all markets in which the company operates.

Epson has launched a new paper for professional photographers. It produces smooth, glossy photographs with high colour saturation and is designed to work with Epson's micro piezo inkjet printers using its UltraChrome K3 Ink with Vivid Magenta. The combination produces a smooth and glossy finish, reminiscent of prints created using traditional techniques. Prints printed on the new paper dry instantly, are acid and lignin-free and will stay flat before, during and after printing. This 330gsm paper is available in A4, A3+, A2 and 24"x36" sheets.



Say What?

(Iffy Writing Award Presented in the Ether for Obfuscation, Confusion, Misinformation or All Out Pretentiousness... but not this time)

Quark recently announced a new marketing initiative, one that we think has to be the most creative we've seen in years and proof that Quark really does care about the graphic arts market.

The campaign is called the Love campaign and its message to customers is simple: "Fall in love with Quark all over again".

This multichannel campaign aims to recapture the excitement of using XPress for the first time and tempts users with a free 30 day trial version of XPress 7.3. Anyone upgrading gets Quark Interactive Designer, XPert Tools Pro and Markzware's ID2Q InDesign to XPress conversion software for free.

Quark has embarked on a direct mail campaign with associated advertising, and a lovequarkxpress7.com microsite. According to Gavin Drake, Quark's European marketing director: "The 'Love' campaign taps into the feeling designers experienced when they first used Quark XPress ... the underlying humour and light heartedness of the campaign make the essence of the message clear." This campaign is about raising Quark's profile again, and as Drake says "for users to fall in love, they're going to have to take that first step and accept our invitation for a date."

Wonderful.

Acrobites

(Something to get your teeth into)

WSDL

The Web Services Description Language describes network services using XML. It is a W3 standard and is used for messages with either documents or procedural descriptions. WSDL creates abstracts of the documents or operations and binds them to a specific network protocol so that they can be knitted together to create specific services or collections of documents.

OMFI

As its full name suggests the Open Media Format Interchange is used for transferring data across media. The format was developed by Avid, one of the broadcast industry's leading lights. This US company specialises in nonlinear editing tools, which means you don't have to scroll through a series of frames to edit a piece of video or film. Because it deals with time based media this format has to be able to represent the source media, and be able to keep track of changes to it. This is what OMFI does, and it's important for the graphic arts and media industries because it is the preferred format for managing video and audio across media, i.e. for use on websites.

Expandocs

(In this section, we aim to cast some extra light on a particular recent news story.)

As mentioned in the news section in the last issue of Spindrift, GMG released a new version of its proofing system, ColorProof, this autumn. But there is so much in this release that we decided to expand a little bit more on what's included.

GMG has basically extended its system from being 'only' a proofing system to now include quality assurance features for both early checks (the Ink Optimizer module) and actual on-press quality checks (the Print Control software brought into the software suite through the collaboration with Tucanna). Of course, the new proofing system, version 4.5 of ColorProof 04, in itself offers a range of additions and improvements.

The structure of the GMG proofing system is somewhat complex, since it supports both the GMG proprietary colour management technology, and general ICC-based colour management. GMG calls its own technology 4D colour management, meaning a calculation of colour values in CMYK (four channels) and not only through CIE-lab (three channels). One benefit of this approach is the capacity to preserve the properties of the black channel. The GMG ColorProof 04 contains four different software products: GMG ColorProof, GMG RIP-Server, GMG Pro-

fileEditor and GMG Spotcolor-Editor, all of them together more simply referred to as the GMG RIP.

The main components of the system are the GMG RIPServer and the GMG ColorProof. The RIPServer is responsible for the PS/PDF-processing. Typically, in the early part of the workflow, PostScript or PDF files are converted to TIFF (1-bit or 8-bit) or EPS-images. ColorProof in reality contains two colour engines: the GMG MX-colour engine for conversion of the proprietary colour profiles called MX4 and MX5 DeviceLink-profiles, and the ICC-engine to handle general CMYK output ICC profiles, or n-colour (multi-colour) ICC profiles.

The Ink Optimizer module is optional in ColorProof 04, and has several functions, of which checking the total ink usage is among the most important. Often general ICC profiles have unnecessarily high ink usage, which not only costs more in ink consumption, but may also cause problems in the printing and binding process. Longer drying times and increased risk of ink smearing on the printed sheets are just two examples of things that are best avoided.

The GMG Ink Optimizer can reduce the usage of the CMY inks, without changing the original colour. But it can also apply additional image sharpening if requested, on PDF-files. This is done differently to CMYK images and RGB or Greyscale images, and GMG refers to it as 3D sharpening.

The Print Control software was developed by Spanish company, Tucanna, but is brought into the GMG product offering as it complements its proofing and quality assurance suite of solutions. Print Control, together with the sister application Rapid Check, is used to check the printed results on press. The key parameters that Print Control checks are CTP curves, optimum print density, dot gain, grey balance and colour accuracy for the primary colours CMYK. The Print Control software contains all the parameters of ISO 12647-2 (sheet- and web-fed offset) and ISO 12647-3 (newsprint), but the user can set up their own in-house standards. The latter is particularly useful in printing conditions that aren't covered by international print-

ing standards, such as when using FM or hybrid screens, or in special flexographic printing.

Spindocs

(Where the spinner gets spun!)

Kodak is assiduously wooing the newspaper industry and at Ifra in Vienna put out the following press release:

“Kodak’s Newspaper 2.0 Solutions Add Robust Capabilities to Extend Newspaper Communications Strengths for Readers and Advertisers.

“While today’s competitive media environment is challenging for newspapers, Kodak is focusing on a series of solutions that enhance the vitality of newspapers. Kodak’s Newspaper 2.0 initiative uses the traditional communications strengths of newspapers in combination with new technology to increase revenue opportunities for publishers.”

So far so vague, but it gets worse.

“Kodak has focused its attention on the newspaper segment in two areas. Kodak’s Newspaper 2.0 solutions use existing products as part of new applications designed to meet the needs of newspapers, and the company is developing new solutions aimed at providing newspaper printers with tools to reach readers, attract advertisers and enhance production efficiencies.”

Eventually this press release perhaps got to the point, but we were beginning to lose the will to live and had to get some fresh air.

Boomerangs

(Your feedback fed back)

In the previous issue of Spindrift we wrote about how media asset management systems could further extend connectivity to the Adobe Creative Suite through an SDK (Software Development Kit) for the Adobe Version

▼
 Cue technology. In the intro of the article we gave the impression that the Adobe Version Cue technology is to a great extent based on the general internet technology WebDAV (Web-based Distributed Authoring and Versioning), but this apparently isn't entirely accurate. Mike Wallen from Adobe explains:

Dear Paul,

Thank you for your article. It has done a good job explaining the opportunities for third party developers to leverage Adobe's technology. However the emphasis on WebDav as Version Cue's basis is a bit misleading. Version Cue is not based on WebDav but rather it supports WebDAV as a protocol. While WebDAV is an open standard its use is limiting in the context of digital asset management applications and modern web services infrastructures. Describing it as part of Version Cue's core architecture may turn off the savvy developer or IT person.

Below is a clarification.

Version Cue Server has an SOA that enables multiple protocols to enable client and server-side connectivity and extensibility including WebDAV and SOAP.

The server supports basic connectivity via WebDAV which enables a limited set of use cases to manage assets. For instance, the WebDav protocol is utilized on Windows to enable you to add the Version Cue Server as a Network Location. This enables people using applications like Microsoft Word to upload, download, check in/check out files in Version Cue projects.

Adobe applications (like Bridge, Photoshop, and InDesign) have direct connectivity to Version Cue Server via SOAP. This enables deeper integration, faster performance, broader set of management capabilities, and third party extensibility. For instance, using Bridge you can visually browse, search metadata, edit metadata, download, and use simple methods like drag and drop to manage files. In addition a Photoshop user can use the Adobe Dialog to open, search, and file actions.

Third party developers (e.g. DAM) can utilize the Version Cue SDK to create server side plug-ins that leverage the SOAP protocol to make custom workflow commands and services accessible from within the Adobe applications.

Thanks!

Mike Wallen, Sr Product Manager Adobe Systems Inc

We are happy to publish this clarification.

Driftwood

(Useful stuff washin' up on our shores)

When we visited Xerox's research labs in Rochester, New York last summer, its scientists showed us a quite amazing new colour control technology. It uses voice commands to change colours.

The idea is to provide natural language-based editing tools so that people who don't know about how colours are created can change them on screen. The technology is fascinating for the graphic arts business, although it could blow a large hole in existing colour management practices. The consumer market is a more likely focus for Xerox with this technology.

The Xerox Innovation Group's colour control technology uses lists of words and phrases people might use in order to change a colour. The words and phrases are matched to relative RGB value changes, so for example, 'lighter' will result in a reduction in saturation with the necessary change being made to the CIE $L^*a^*b^*$ values once the user saves the file. The technology starts with a fixed colour definition so that the user can change its properties and on-screen colour appearance.

This is the part that is really clever, because although Xerox has already defined a dictionary of terms people might use to express their desired change, users can also add their own definitions. Terms are defined according to mathematical equivalents, and Xerox is considering

▼
adding a tool to the user interface so that people can create their own terms for the software's lexicon. For example the phrase 'jazz it up a bit' could be defined such that it increases lightness, and 'make this more serious' might bring it down.

Xerox's technology has fascinating possibilities for the photo market, and is infinitely preferable to faffing about with slider bars. Consumers want products that are convenient and quick to use, as well as being fun, so Xerox could have a winner on its hands. Unfortunately, there's a world of difference between 'could have' and actually 'having', and this brilliant idea is by no means ready for prime time. It needs many more terms in addition to the 1800-odd already defined, and its user interface needs some cosmetic surgery. But these are trivial concerns and we look forward to seeing the next version of this technology.



The Owl & Minerva

We recently visited Fujifilm's Advanced Research Laboratories in Kanagawa, Japan to learn more about the company's plans for its future. This is the story of how one of the graphic arts industry's most significant players is reinventing itself, and it reflects as well how the printing and publishing industries are changing.

So what do the owl and the Roman goddess of wisdom have to do with the graphic arts? The owl is synonymous with knowledge and Minerva, apart from her knowledge credentials, was also the goddess of poetry, commerce and craft. Fujifilm chose these symbols to figure large in its research ethic. The two daily greet 800 boffins as they come into work, reminding them that wisdom, courage and creativity are the foundation of their collective future.

Two themes run throughout this tale: the environment and partnership. The environment is Fujifilm's foundation for its own future and shapes Fujifilm's market perception as it develops new revenue streams, particularly using digital printing technology. According to Masaya Seki, operations manager for the Graphic Systems division's marketing group, environmental responsibility is part of what defines Fujifilm because our "overarching aim is to improve peoples' lives". This might sound a little over-egged, however the company is putting into practice what it preaches.

Fujifilm has been in business for over 70 years during which time it has pioneered developments in photocopying, printing plates, digital cameras, LCDs and X-ray imaging. However changes in world markets demand changed business models, as most developers of graphic arts technologies have found. One of the most visible changes for all businesses in mature markets is the need to prove their environmental credentials and demonstrate commitment, and for the printing industry it's no different. For Fujifilm this means creating environmentally benign products and supporting international initiatives for a future based on green ethics. Its Design for Environment and Lifecycle Assessment initiatives for instance, ensure a minimal environmental impact of Fujifilm products, starting with design and ending with their eventual disposal.

Green Machine

Fujifilm's green policy was established in 2002 and the company claims to be second to none in its commitment to sustainability and the environment. In this it is probably right, at least as far as the printing industry goes: Fujifilm is listed on the FTSE4Good Index and the Dow Jones Sustainability indices. The FTSE4Good uses a series of measures to evaluate the performance of companies meeting globally recognised standards of corporate responsibility. The Dow Jones Sustainability listing similarly



Fujifilm's Advanced Research Laboratory in Kanagawa, Japan.

tracks the financial performance of the companies committed to sustainability worldwide.

In addition to the Design for Environment and Lifecycle Assessment initiatives, Fujifilm is working towards a 20% reduction in energy consumption by 2010, converting from oil to natural gas. In 1983 the company set up the Fujifilm Green Fund investing one billion yen “to provide support for preserving the natural environment”. Fujifilm has also contributed \$9m to the World Bank’s community development Carbon Fund.

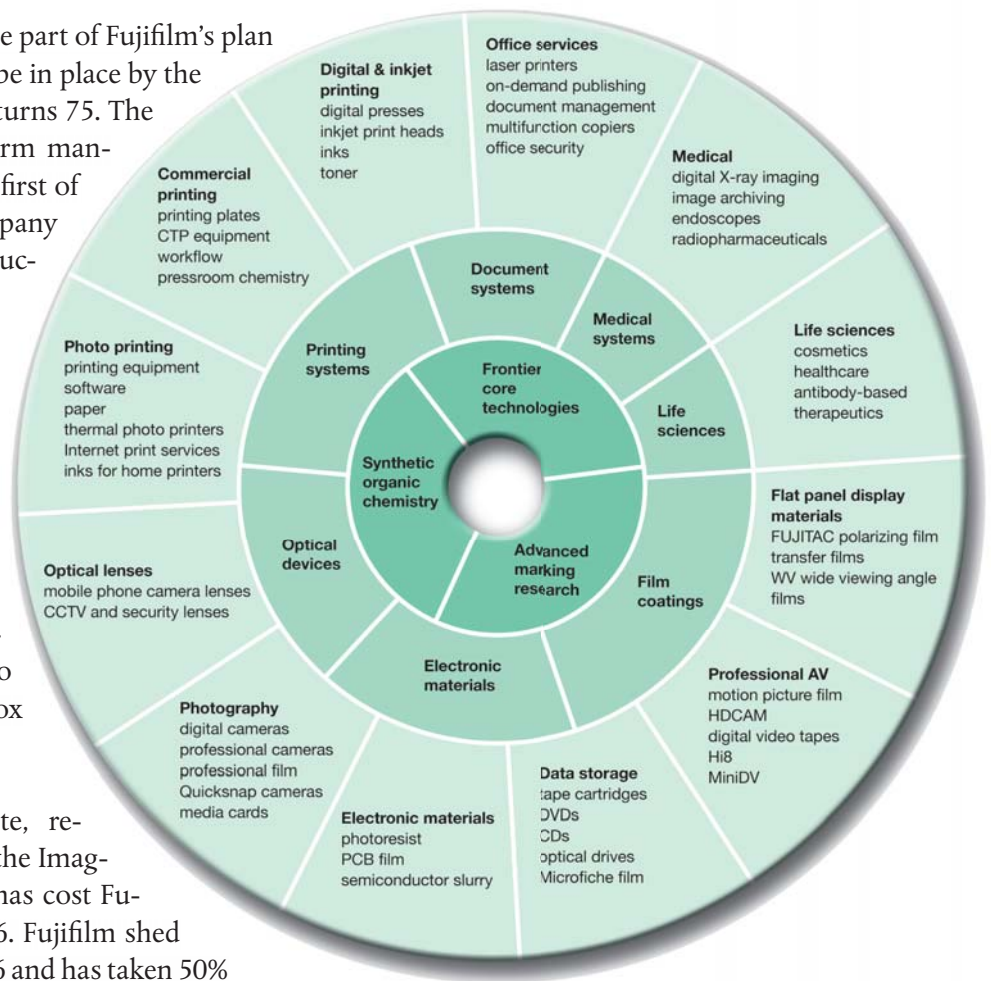
Fujifilm’s Grand Plan

These environmental initiatives are part of Fujifilm’s plan for its ‘second foundation’ due to be in place by the end of fiscal 2010, when Fujifilm turns 75. The company’s Vision 75 medium term management plan has four stages, the first of which is to create a holding company and optimise the management structure, which has now been done.

Fujifilm has gone from being a sprawling company with between ten and 12 subsidiaries to being a holding company with only two operating companies: Fujifilm and Fuji Xerox. Each of these has various subsidiaries for which they are directly responsible. Of Fuji Xerox, 75% belongs to Fujifilm and the balance to Xerox Limited in the UK.

Structural reforms for corporate, research and development, and for the Imaging Solutions division especially has cost Fujifilm 202.5 billion yen since 2006. Fujifilm shed 5000 positions over 2005 and 2006 and has taken 50% out of fixed costs, helping the company’s ratio of income to revenues to reach 4.1%. Structural reform has also substantially reduced variable costs and Fujifilm is achieving comparable profitability. The company is prioritising key growth areas, including the graphic arts and the rest of the company’s Information Solutions division’s activities. The division contributes 36.9% of overall revenues and has 2007 revenues of €6.54 billion. Of this, 28% came from the graphic arts, a 9% improvement over 2006. Document Solutions accounts for 41.4% and Imaging Solutions 21.7%.

Fujifilm’s Vision 75 plan has a Q1 2008 revenue target of €1.6 billion, for the Information Solutions division, up 12.2% over Q1 2007. This is expected to yield a 114.9% increase in operating income to €213m. The



This diagram shows how Fuji’s activities fit into its corporate structure.

▼ graphic arts, the division's largest component, is expected to generate €481m in revenues. In contrast the Document Solutions division's Q1 2008 revenue is expected to be €1.78 billion, with €104m operating income.

This year Fujifilm has invested €0.13 billion into research and development, 77% of it for Information Solutions, a contribution that is expected to rise. Fujifilm is also investing in infrastructure, research and development and mergers and acquisitions to fuel growth based on leveraging existing expertise and developing new technologies. Flat panel displays, electronics, printing plates and inkjet materials are just the start. The company is positioning itself to do business in medical and life sciences markets as well as the graphic arts, document solutions and optical devices.

Fujifilm is strengthening its manufacturing operations, with all four Fujifilm factories now ISO 14001 accredited and all with programmes in place to reduce energy consumption and waste. The company has invested in production capacity particularly for its LCD business. This technology is used for a range of applications such as car navigation, camcorders, televisions, mobile phones, PC monitors and notebook PCs. By the end of 2009 Fujifilm expects to be producing 60m square metres of the stuff at its Shenzhen plant in China. Growth in the mobile phone business will also benefit Fujifilm's sales of optical devices because its lenses are used in many camera phones. They are also used in security cameras, another booming area.

For the graphic arts and printing industries, Fujifilm is maximising the synergies of its recent acquisitions, including Sericol (inkjet and screen printing ink suppliers), Dimatrix (manufacturers of industrial inkjet heads) and AVECIA (manufacturers of ink dyes for inkjet printers), to develop high speed inkjet presses, and is expanding its existing inkjet product line with two new machines. There will be an entry level engine to sit below the UV Acuity with a lower price and equivalent output speed. The second new machine sits between the UV Inca Spyder and Fujifilm's solvent Vybrant, so it will have equivalent speed to both but be cheaper than a Spyder.

On the basis of these technologies and new research, Fujifilm is set to grow its existing business rapidly moving into wide format applications such as displays, banners, point of purchase, and industrial printing. It is leveraging analogue expertise in conventional offset to develop technologies for variable data printing; the packaging market is also on the map. Through its collaboration with Xerox, Fujifilm will tackle the transaction, catalogues and sheet fed direct marketing markets, plus photos and books. Besides restructuring and investment, Fujifilm's digital growth in the graphic arts market is built on synergies within its market, most notably photo labs, commercial and screen printing, and investing into its sales network accordingly.

The environment is Fujifilm's foundation for its own future and shapes Fujifilm's market perception as it develops new revenue streams, particularly using digital printing technology.

Sales Channels

Fujifilm's most obvious foundation for sales network development is via its relationship with Xerox. It is fostering synergies between the two organisations such as developing document management software services that maximise growth for multifunctional devices in the Asia Pacific region. Fujifilm's research and development focus reflects this interest in synergy with new inkjet solutions and active allocation of resources between the two companies to optimise sales channel support according to the needs of different markets. Technology, available resources and local market demands shape Fujifilm's sales channel development.

In Asia Pacific, Fujifilm's channel is Fuji Xerox and it works with Xerox Corporation elsewhere on an alliance basis. Together Fujifilm and Xerox are actively balancing their respective interests in both the commercial printing market and the high speed transactional markets everyone is so keen to capture.

It is too early to say how sales of Fuji Xerox engines in the UK, where Fuji Xerox's other owner is based, will work. The Xerox Ltd sales and marketing engine is a formidable beast, so Fujifilm will likely provide support where needed but is unlikely to develop alternative sales channels. It's much more sensible for the two to cooperate rather than compete. We'll know soon enough because Fujifilm has said that it expects to start selling inkjet technology to commercial printers in the UK towards the end of the year. The two companies will present together at drupa and according to Fujifilm UK's managing director Keith Dalton "by drupa we'll have a much stronger alliance"

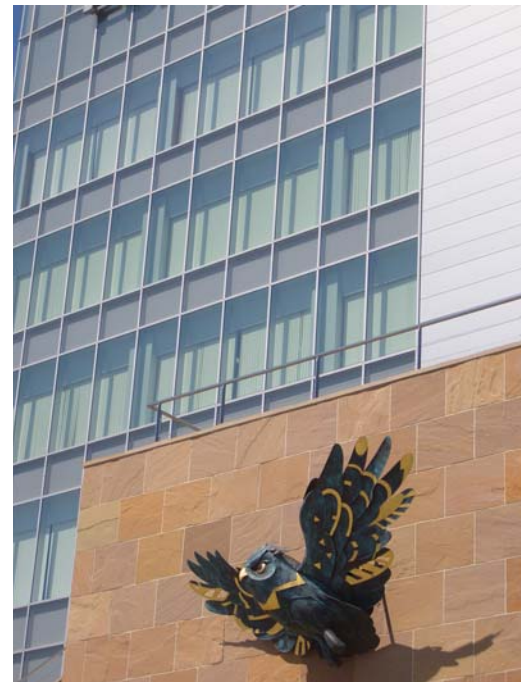
About Those Laboratories

Fujifilm's Advanced Research and Development Laboratory cost Fujifilm over €100 million to build and was opened March 2005. It is organised to encourage cross fertilisation of ideas and expertise and can hold 1200 people. There are many different labs within the facility dealing with all sorts of stuff including graphic materials research. It has a zero carbon footprint, using solar power (which reduced Fujifilm's energy consumption by 4%) and recycling all water.

Fujifilm understandably won't say how many patents have been filed since the facility opened, but Fujifilm has over one hundred people employed to manage its intellectual property worldwide and 30 of them are based in Kanagawa. There are also around 30 Fuji Xerox people working on technologies relating to colourants on substrates in Kanagawa. Those working in this plant are encouraged to develop their ideas without the conventional pressure for filing patents because Fujifilm believes this would compromise their creativity.

Wisdom, Courage, Creation

Everything at the site is designed to create an environment that fuels ideas and creativity. The facility has 56,000 square metres, with plenty of open



Fujifilm's owl keeps an eye on the boffins at work.

space and a 3000 m² clean room, lots of meeting facilities and refreshment stations, a Knowledge Café, library and garden areas. Engineers and scientists come from a range of disciplines and the ambience is one of intellectual synthesis. People work on new ideas for which they create value and for commercial printing that means improved plate technologies, pressroom chemistry, CTP equipment, workflow and digital printing. Fujifilm is combining its chemical and colour management technologies with Fuji Xerox engineering for advances in both toner and inkjet digital printing including printheads, inks and toner, plus paper, software, thermal photo printers, inks for home printers, and internet print services. In addition to its research scientists Fujifilm has people on site responsible for developing applications for the various research projects.

Research is organised into four laboratories, three of which are relevant to the printing industry. The Frontier Core technology lab builds core technologies based on photonics, nano technology and functional materials. The Synthetic Organic Chemistry lab develops organic materials, and is where most people work because of the growth and market potential of flat panel display technologies. The Advanced Marking research lab develops new marking technologies for printing. (And in its own way the Life Science lab is also relevant since it deals with peoples' well being.)



The Fujinomiya factory with Mount Fuji in the background.

Business development

The green ethic is not just about rescuing the planet because inevitably idealism and reality have to come together. Fujifilm has to ensure that what its scientists invent, Fujifilm can sell and that the markets for which products are designed are ready for them. The ProT and ProV process-less thermal and violet plates are a good example: there are now some 150 ProT sites in the USA and 200 sites in Europe using the plate in daily production, but ProT is not available everywhere. ProV will be launched next year, probably before drupa where it will certainly be on show.

Fujifilm's workflow activities are another example. Together Fujifilm and Xerox offer a number of workflow options and both encourage moves to new applications for digital output, which vary across markets. For ex-

ample at IGAS Fujifilm showed its latest PX5000 colour print controller, but PX5000 which could eventually include the Fujifilm XMF workflow technology, is only available in the Pacific area. There are 14 active XMF sites in Europe and this technology is being positioned as a multiprocess business management system, rather than a single process production system. Conversely the Xerox FreeFlow suite has worldwide availability and is configured to mix and match workflow tools to market needs. It would be entirely sensible for Fujifilm's XMF workflow technology to be included in the FreeFlow workflow suite where market demands make it appropriate. The trick is to provide the means for sales channels to offer and support what customers want wherever they are.

Matching product to market requirements and pursuing a green agenda is about the survival of the enterprise in a changing business landscape. Ultimately it's about money, because an efficiently run business that meets customer expectations will very likely be a profitable one. With its green commitment and its substantial research and development investments Fujifilm is leading the market towards a greener future. More than this, it is positioning the business to capitalise on future market expectations, where environmental responsibility is assumed and not just trendy marketing chat. Fujifilm looks to be practicing what it preaches with wisdom, courage and creativity.

– **Laurel Brunner**



The MultiCopy Story

The MultiCopy story is a story that reflects with near perfection the nature of the 21st century printing industry. It's a story not of how technology has changed a business, but of how partnership has helped reinvent a tried and trusted business model for the digital age. It's a story to demonstrate why partnerships are the foundation for enduring commercial success.

MultiCopy is a global network of printing companies servicing a vast array of print applications with over 1000 affiliated print centres worldwide. It is part of Franchise Services Inc (FSI), the largest franchise operation in the printing industry, and which includes Sir Speedy, PIP Printing, Copies Now and Digital QuickColor. MultiCopy originated in the Netherlands which is where its operations are most entrenched, with its hub in Amsterdam. MultiCopy has printing facilities at over 80 locations throughout the country, 30 of which are ISO 9001 (the quality management one) certified with ten more expected next year. Worldwide, MultiCopy has 70 outlets.

MultiCopy's head office in Amsterdam is to be the site of Canon's first installation of its 70 colour-page-per-minute Imagepress 7000. The Imagepress 7000 was introduced at the last Ipex, the result of many years intense research and development. With its CLC technology for light to mid range production (105 pages per minute mono and 51ppm colour) Canon arguably had had an early lead in the digital printing industry. But despite the success of this machine, particularly in combination with Efi's Fiery front end, the CLC technology was not the basis from which to compete with the likes of Xerox, Kodak, Xeikon or HP Indigo for high end applications.

The Imagepress is an entirely new proposition and it includes a number of innovations that suggest Canon is well aware of the professional print industry's needs. For example the Imagepress 7000 uses highly accurate twin red lasers to print true 1200 dpi with 256 grey levels. The newly developed Advanced Image Transfer Belt which is partly elastic, can compensate for variations in the media surface and ensure that toner is laid down evenly and consistently regardless of the substrate characteristics. The technology works in tandem with Canon's V-Toner which combines the best characteristics of traditional toners. Toners are generally either pulverised or polymerised but Canon's V-toner is a mix of the two, giving it the wide colour gamut of pulverised toners, but without their excessive shininess and the matt qualities of polymerised toner without its gamut limitations.

The Imagepress 7000's drum has a special coating for stability and image sharpness and during printing the engine automatically measures and

It's a story not of how technology has changed a business, but of how partnership has helped reinvent a tried and trusted business model for the digital age.

▼ corrects page-to-page density. Intelligent Registration Technology (IRT) ensures front-to-back and side-to-side registration accuracy by measuring the front side of a page and then aligning it with the back, fine-tuning the image size if there has been paper shrinkage during fusing.

And that's just the start. In conjunction with X-Rite Canon has co-developed Process Control technology to provide tools for specific device profiling, in addition to the generic Imagepress 7000 device profile. There are also tools for creating and saving spot colour palettes based on Pantone libraries, and seven pre-set halftone screens. Other quality controls have impressed MultiCopy, including gloss optimisation which controls gloss, without compromising speed. The Imagepress 7000 produces print with high gloss on coated media and matt on low gloss media using a new tandem fusing method to fix and transport media via two different paths, depending on the characteristics of the media - there are 2,000 media pre-set in the Imagepress 7000's library. By the end of this year, Canon expects to have over 250 of these machines installed in Europe and there is every indication that it will meet this target. Canon is also working hard to gain customers, like MultiCopy, which is a Xerox Premier Partner and iGen3 user.

MultiCopy chose Canon based on what it saw at Ipex, becoming the machine's first test site shortly thereafter. This original beta machine was a hit with MultiCopy and was replaced with a new one in June. The Imagepress suits the MultiCopy environment because it has the flexibility to handle lots of small jobs with relatively simple set up, which is ideal for MultiCopy. The Imagepress Server A3000 has twin CPUs for concurrent processing of static and variable data and provides detailed pre-and-post flight reporting. It also has controls for suspending, prioritising or advance job scheduling so it meets MultiCopy's need for production flexibility. For output quality control Canon's proprietary Advanced Smoothing Technology (AST) eliminates banding and the Effective Resolution System adjusts image appearance based on document content. It prioritises resolution or tint graduation processing, depending on whether the data describes text and line art or images and graphics.

MultiCopy produces a lot of high quality finished work on heavier substrates including coated stocks, so it was also won over by the Imagepress 7000's inline finishing for trimmed booklets and inline holepunching. The machine supports a wide range of stocks (64 to 300gsm) with 10,000 sheets online for over two hours of uninterrupted production and at 70ppm the press also has the speed, stability and quality MultiCopy needs. The company hasn't thrown out its iGen3 but according to managing director Gerard Slot "to make money with the iGen3 you need many applications". For the high quality work, especially jobs on heavier stocks, MultiCopy is now using the Imagepress 7000, using the iGen3 for additional high quality capacity when needed. MultiCopy is also continuing to work with Xerox 2060s, however these are due to be replaced with a second Imagepress 7000 later this year.



Gerard Slot, managing director of MultiCopy, tends to his Imagepress 7000.

▼ The Beginnings

MultiCopy has its origins in 1972 when, with quite remarkable prescience, if not the best of timing, the Bijenkorf department store set up MultiCopy operations in stores in various European cities. The idea was to sell print as a retail commodity using 200 AB Dick presses to produce it. Four years later when it was clear that on-demand/ quick printing was not yet a retail product, the company divested its print locations. Several operations were acquired as part of an MBO with outside investment, most significantly from Moore Corporation, the Canadian forms printer. Moore sold its shares in 1996 and FSI is now entirely self-financed with a presence in 30 countries and 1000 locations worldwide offering more or less same day service.

The MultiCopy part of this empire rapidly grew to a network of 34 locations throughout Holland. In 1981 and at the bank's behest MultiCopy had switched to a franchise model, offering employees the chance to either be closed down or to take on their businesses under franchise agreements. Of 34 outlets, 22 chose the franchise option overnight and today MultiCopy has pretty much a quick print monopoly in Holland, with a dedicated sales force set to grow to around 100 sales people in the next couple of years. The association with FSI continues because as Gerard Slot explains "the advantage [for franchisees] is that we are part of an international company".

The Franchise Model

MultiCopy is a classic franchise model, with franchisees starting either from scratch or from the basis of an existing printing company. Companies without a clue about the printing business are good for MultiCopy, because the company can add value to that business. Franchisees pay a general fee to a maximum of 5.5% net sales and an additional marketing and promotional fee to a maximum of 3% and this annual percentage drops with the growth in digital print volumes. A franchise committee of seven owners represents the franchisees and liaises with the MultiCopy board, to share and develop ideas about future business development and technologies.

MultiCopy does a lot to help its franchisees, especially with staff training. As Slot says "we are strong believers that sales training is the most important part of the future". He also believes that printers have to spread their capacity and technology investments across a range of applications: "Colour and large format you have to do and direct mail." MultiCopy puts its money where its mouth is and there are sales training opportunities to help its franchisees, along with marketing and technology assistance.

MultiCopy's nurturing extends to technology innovations and support as well. The company has, for instance, translated into Dutch EFI Printsmith which is used at 80 MultiCopy outlets. The company is working with Interlink which provides web-based software tools to help service providers get more involved with marketing services on behalf of their clients, specifically for print, fulfilment and mailing services. ►

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Interlink is helping MultiCopy franchisees to provide personal URLs for their customers, so that they can take advantage of MultiCopy's web-to-print solution, Mydocs.

Mydocs is MultiCopy's own development and it has been less expensive to implement and support than XMPie, its closest rival. It is now in version 2.0 and there are over 5000 MyDocs customers sending files monthly. Franchisees are not obliged to use MyDocs and MultiCopy also offers Printsmith and Digital Storefront for those centres that would prefer an alternative. Web-to-print is a key part of the future for MultiCopy as Slot explains "Web-to-print is so important and our sales people are doing projects with customers to build up the web-to-print market. Web-to-print changes everything. If you don't do it, do it!"

MultiCopy also has an agreement with DHL/Deutsche Post. This is the second largest postal company in the Netherlands. MultiCopy centres are centres for Selektmail direct mail, the post office's bulk mailing service which provides a 20% advantage in postage costs. The deal with Selektmail has given MultiCopy the knowledge and experience it needs with distribution and database management to develop further services. For example, many franchisees use the Objectif Lune Printshop Mail software which Canon supplies for personalising print, although according to Slot: "Only a small percentage is personalised".

To help improve matters, MultiCopy has put together database guidance and recommendations for how to check and clean up databases. Since there is no clear code of practice for databases, providing printers with prescribed procedures for data management makes a lot of sense, particularly as the guidelines are based on experience gained in print fulfilment.

In 2008/09 MultiCopy is launching MultiCopy Creative Services for franchisees to provide bespoke services helping them handle special projects and sales support. Expert consultants will be introduced at the MultiCopy annual convention in January 2008. This event promotes new technologies, shares ideas, and introduces new services for franchisees, such as the photo printing services which will initially rely on the Imagepress 7000 for output.

As part of this concept, franchisees can sell photo album services to, for example, sports clubs. Working with Albummaker.nl, developers of web based photo album creation and ordering software, MultiCopy can offer clubs and schools access to the images on a website, with the option to create and print albums. In return for providing the web access, the franchisees and MultiCopy take a cut of the order value. In the UK Bonusprint uses the same software, however Bonusprint is only about printing the albums and lacks this rather special social dimension. MultiCopy offers customers the chance to share pictures, plus the option but not the obligation to create prints and albums. The cost price is split between the customer, the franchisee and the production centre based on the post-



MultiCopy's managing director Gerard Slot.

code of the delivery address. Currently all printing is done in Amsterdam on the Imagepress 7000, but MultiCopy is looking at letting franchisees print at their own locations, subject to them meeting a set of performance criteria.

The FSI group has its own digital research centre in the US, and this can be used to test new technologies on behalf of its franchisees. MultiCopy has access to this and at the local level MultiCopy relies on cooperation between its board and the franchisee board. Today the concentration is on improving workflow between franchisees, particularly to share capacity and to exploit cooperative activities.

In addition to its basic membership, MultiCopy set up an internal network in Holland in 2005 for its franchisees along with a new membership programme, MultiCopy One. This programme includes a software development, backup facilities, DSL lines, mail servers, general IT acquisition and other services. It is expected to provide more comprehensive services to the membership such as Voice Over IP (VOIP) which is due by the end of the year, plus security and digital commerce support. To be part of MultiCopy One, franchisees pay between €4000 and €5000 depending on the services needed and in return pay minimal amounts for production technology software updates, with access to additional technology support and recommended practice.

MultiCopy spends a great deal of time, effort and money to develop programmes such as this on behalf of its franchisees. This involves working with suppliers and developers to get the most out of what the technology could offer. It also involves considerable support for the franchisees to help them apply the technology to new business ideas. New ideas are what MultiCopy is all about, whether it's sending franchisees little pamphlets with ten ideas for how to improve profitability, or substrate testing at the US test plant. MultiCopy also has some new ideas about how suppliers can help accelerate the development of the digital printing industry.

Time for a Change

This is about how printers function and their incentive to exploit digital technology. According to Slot the digital press manufacturers could do a lot more, and Canon is already looking into ways of breaking the current model. Slot says: "We started twenty years ago with copying so we are familiar with clicks and selling digital print. We have learned that the vendors are not doing it the right way for our industry". Slot believes that long term five year contracts are strangling the digital printing industry. Such contracts lock printers into a technology for too long, and printers are stuck either without the means to develop capacity for the device, or they are rendered uncompetitive as technology changes.

In defence of suppliers, there is ample opportunity for printers to work with suppliers to develop their digital businesses: Canon has its Business Builder programme, Xerox has the Profit Accelerator programme, Kodak ▶



The MyDocs service has proved to be popular with MultiCopy's web to print customers.

▼
its Market Mover programme and HP has a business development initiative. However the five year purchase contract still constrains many printers to a model that does not reflect the nature of application change, the speed of technological advances, nor the competitive landscape, which is only getting harsher.

Slot believes that the “click price must be lower because that’s the only way to build volume” and that the five year leasing model has to change so that printers can change their technology more easily. Slot would like to see a write-off over three years, options for outright purchase plus separate maintenance arrangements. This of course could be extremely difficult to do, because of the complexities of financing and local commercial expectations. However Slot wants suppliers to move away from expecting customers to just pay depreciation; maybe it’s an argument for companies to provide their own financing, as Canon does. Canon claims to be the only company selling digital presses that currently offers its own financing. The organisation has the scope and flexibility to write its own contracts, contracts written to suit the customer and supplier, rather than the finance company.

Gerard Slot rightly points out that “our industry is changing and drupa is fully sold out, and it’s an industry in turmoil so you cannot continue with what you have today.” That applies to everyone involved in the printing business, not just suppliers, because print is no longer about smearing grease on dead trees. It’s about multichannel communications and helping to deliver complex messages in a noisy and chaotic information landscape. It’s about sharing ideas, leveraging technology and creativity for customers. This is the age of the Internet where open, shared access is the foundation of new business models. That is the ethos that shapes success, and it’s the ethos shaping MultiCopy. It is also part of the Kyosei ethos which means living and working together for the common good and which incidentally is Canon’s motto.

– **Laurel Brunner**



More than Waltzing & Wiener schnitzel?

Well yes, there's also strüdel and Sigmund Freud and Mozart. And this year we can add IfraExpo to the list of things to associate with Vienna. It's the newspaper industry's most important annual event, and although its organisers have made some pretty weird choices in the past, taking IfraExpo to Vienna was inspired. Not only is Vienna much more interesting than Leipzig, it is also as easy to reach for Eastern Europeans, and the food is much, much better, as are the pastries, cakes, beer and coffee.

As usual there was masses to see at the show, so rather than exhaust everyone, our editor included, we have split coverage into two parts. We begin here with a look at workflow, output management and production technologies, and will conclude next month with multichannel technologies spanning both print and the web.

The 367 exhibitors, including one hundred first timers, had plenty of new technology to show off on the 15,126 m² show floor. Over 33 countries were represented at the Vienna Messe, confirming IfraExpo's unique position in the calendar. Visitor traffic was also healthy, though not a mob, with a record number five percent up on the 2006 event at 10,000 visitors from 87 countries. It was disappointing that so few northern Europeans and Americans showed up and that so few mobile telephony companies and broadcasters were represented on the show floor. IfraExpo's organisers had done their best to persuade companies from these sectors to exhibit and are continuing to work on them. Hopefully we'll be able to learn more about their activities and contributions to newspaper publishing next year, when IfraExpo returns to the Rai in Amsterdam.

Despite the ninnies saying that print is going away, there still seems to be a terrific demand for it. Helping people to find their way through masses of information is what newspapers are all about, so newspapers have terrific opportunities to exploit the internet where information chaos reigns supreme. Print is central in this so of course it still has a role to play. This is particularly true as newspapers move away from paid-for to free printed editions and want better ways of producing print more efficiently and more cost effectively.

Computer to Plate Developments

Production technologies for print of course remain high on the newspaper publisher's agenda, particularly given the penchant for multiple zoned editions and supplements. The CTP technology business is pretty steady these days with most attention paid to plates and workflow optimisation. Agfa and Fuji film both demonstrated processless plates and



workflow, however Kodak focused on its entry level CTP technology and digital printing.

Kodak's Violet News system is for small newspapers wanting to make the move to CTP. It comprises the Violet News platesetter for imaging up to 44 panorama plates per hour, the Kodak violet plate, a processor and Prinergy Evo, Kodak's entry level workflow system. The bundled system is not available in North America.

Agfa demonstrated a new version of the N91v violet plate for newspaper applications, the market leading newspaper plate, plus a new violet chemistry-free plate. The N92v will be launched next year and works in the same way as the N91v, with radical photo polymerisation using laser exposure, preheat (image amplification), rewash and alkaline development. The N92v has improved resolution and lasts longer for run lengths up to 350,000 and 100,000 using UV inks. The plate has reduced dot loss, better resistance to high temperatures and humidity, and has a longer shelf life. It will be introduced in Q1 2008 in Europe, then China and then North America and is backwards compatible with N91v and hardware.

The new violet chemistry-free plate removes non-image areas with gum. Although Agfa also sell thermal plates it believes violet imaging is preferable to thermal imaging on press because it produces a visible image on the plate. This makes it more user friendly for the pressman because the plate can be inspected and measured. Agfa's new chemistry-free violet technology promises strong contrast, robustness and high run length with an imaging speed estimated at 200pph. A local Viennese newspaper printer, Media Print, is testing the plate and it has performed well for runs of up to 250,000 impressions.

The VCF plate imaging is achieved in a way similar to that of N92v with laser exposure followed by heating and removal of non-image areas with clean-out or gumming and brushing. Agfa plans to introduce a clean-out unit at a later stage but in the meantime can adapt existing processors for the new technology. The VCF has 30-50µj sensitivity so it will work with existing platesetters. It supports around 150,000 page impressions and full commercial availability is expected Q4 2008.

Agfa also introduced version 6 of its widely used Arkitex workflow management system. New features include softproofing which sends the proof plus image reports to clients with the appropriate site license.



Kodak focussed its efforts at IFA on digital printing and its entry-level CTP system.

There is also tighter integration with preflighting applications, also sending preflight reports to clients and it is possible to hold and unhold pages and sheets during production, pending editorial changes which can be made within the browser interface.

Planning of complex impositions is now easier and pages can be annotated for improved communications between users, particularly editorial people wanting to communicate with the pressroom. Arkitex Portal is a browser interface for viewing system status, accessing and viewing everything in the workflow. Although this technology is initially for single sites, Agfa will support multiple sites in a forthcoming version.

FFEI, now an independent developer, is working with German developers Doline and introduced the Alinte News CTP line, with three engines in the series. The Alinte is a violet device capable of imaging up to 225 plates per hour. Doline had an existing design concept for the machine to which FFEI has made 80-odd changes in order to facilitate manufacture. Under the terms of the agreement Doline has the exclusive rights to sales in Germany and FFEI has the rights to everywhere else, although it won't be selling the Alinte direct. FFEI is in discussion with various partners; Fujifilm will continue selling the Luxel News.

There are three Alinte models, each of which can be configured as manual, semi-automatic or fully automatic. The three models are: Alinte News, imaging up to 120pph; Alinte News Professional for up to 175pph; and Alinte News Ultimate for 225pph, based on a 315mm feed length and 1200 dpi imaging. The Alinte supports all common newspaper formats and the technology offers variable resolution to 1270 dpi, a cassette for up to 1000 single plates (800 with interleaf) and interleaf removal. Alinte uses an F-theta field flattening bed which is curved rather than the usual F-theta flattening lens which works for a flat bed size up to around 650mm. Based on the principles of internal drum imaging, this new technology has apparently no restrictions on the bed size and no dot distortion because the beam length is always constant and the exposers spot has a constant form. Spot size is controlled according to resolution.

FFEI also presented for the first time its RealVue 3D three dimensional simulation application for print proofing and prototyping. This Acrobat plug-in was developed by FFEI software engineers with backgrounds in games development to produce small Java 3D files for web sharing and viewing. There are two versions, one for designers who just want to share files but don't want to change parameters, and a version with more features. A server-based version is expected to be ready later this year.

There was also a new CTP engine from ECRM. The Mako Newsmatic HS Plus violet engine supports eight resolutions from 1016 to 2540 dpi and is designed for medium sized newspapers. It images 100pph at 1016 dpi.

Does the world need another CTP system, one has to ask? Well according to FFEI there is a market for new sales of over 2000 units over the next

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two years in Europe and especially in the US where the adoption of CTP is a mere 50%. There is also a burgeoning market in Asia and a trend towards 100 per cent colour in newspapers all of which create demand for fast platesetting.

Digital Newsprint

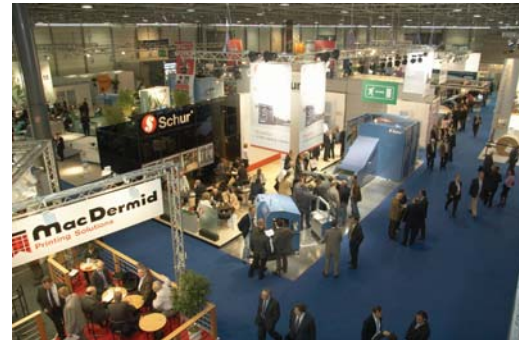
Although this is a great idea in theory it appears that too few newspapers seem to be able to make it pay. They may want to revisit the concept however following Kodak and MAN Roland's IfraExpo demonstration of on-press digital printing. Using an adapted version of the Versamark printer bolted onto a Colorman newspaper press capable of printing 3,000 feet per minute, Kodak and MAN Roland can now add text, barcodes and monochrome images to newspaper pages. The idea is to be able to update pages with variable data, for news or personalisation. This announcement is part of Kodak's Newspaper 2.0 programme and its wider effort to develop new ideas for newspaper publishers. According to Kodak, Newspaper 2.0 "uses the traditional communications strengths of newspapers in combination with new technology to increase revenue opportunities for publishers."

New Print Production Technologies

Newspapers are increasingly embracing new printing technologies to support hybrid production, configuring a press so that it can print both newspapers and semi-commercial material, such as leaflets and magazine supplements. This creates new business opportunities, exploiting coldset and heatset printing to meet the growing demand for new formats and improved quality. The capacity to print alternative formats, with high colour quality on various substrates is a means of developing new revenue streams, creating new opportunities for cross channel marketing synergies and extending the business base.

Adding commercial work to a newspaper workflow of course requires new approaches to workflow management. It also adds a processing burden to the digital front end systems and business management. None of this has been lost on the press manufacturers and the rest of the development community, so a number of interesting workflow and front end systems technologies are coming onto the market. Tools such as the MIS system from Rogler are being configured for newspapers to provide business information to managers and help production systems support hybrid workflows more cost effectively. Rogler's Technologic system is based on a calculation module that works for prepress, press and post-press, plus third party activities, to calculate costs for a print job. This technology can be configured for newspapers to help them optimise workflows and press usage, to produce commercial work economically with better upfront control. We expect more MIS developers to start targeting newspaper publishers in this way.

Another area of improvement for print's cost effectiveness is in ink usage and colour quality control. The first company to recognise that there was a need for this was Alwan, leaders in standardisation and digital colour ▶



The show was busy with a record number of visitors.



The Vienna Messe, site of IfraExpo 2007.

management developments. At IfraExpo, besides Alwan, a clutch of companies offered tools to improve print's colour quality and its cost model.

Alwan's CMYK Optimiser V3 combines preflighting, standardisation and optimisation for CMYK colour separations and data, minimising ink usage and optimising colour quality without compromising colour accuracy. The software analyses PDFs taking into account the process, press and paper used to produce accurate data for proof and press. It detects and corrects problems in the separations, taking into account the way in which colour data interacts across the set. So for example the data making up large areas of black on the page, will be managed across the colours used to make it up. This will include 100% black of course, plus varying percentages of cyan and magenta, and even yellow depending on the substrate. CMYK Optimiser V3 includes automation tools for file assessment and standardisation, all of which improve makeready times and production stability.

Binuscan, perhaps better known as a developer of image processing software, has recently entered this sector. At Ifra the company presented its PDF Server technology for optimised output management. It uses PDF data as the basis for quality assurance and cost control through ink savings, and more accurate colour matching. It is based on data conversions to optimise the PDF for output and differs from CMYK Optimiser because it uses a comparative analysis of the CMYK to LAB values, selecting the values that require the least amount of ink.

OneVision has leveraged its skills in PostScript editing to provide additional services for newspapers such as automated ad placement and colour conversions. OneVision has now released the product as part of OneVision's Asura data quality assurance system. This plug-in does its colour data calculations once the preflight software has first cleaned up the PDF or PostScript file. Asura does all its ink saving calculations on the raw PDF component data. As with competing tools, the goal is a recalculation of separations to reduce their CMY component and increase the K. InkSave is a plug-in that works as part of the Asura processing. OneVision doesn't use device link profiles, so it does not calculate colour interactions. Instead, OneVision's priority is to provide quality assurance on the data from the start, using a combination of GCR and UCR to reduce ink usage and maximise colour quality. Because the procedure is part of the data quality assurance, the approach also reduces production steps by combining processes.

OneVision also announced advanced PDF reporting capabilities for its web-based version of Asura called, rather confusingly, Asura Enterprise. This online file transmission system provides users with accurate views of production files along with a detailed status report. In this context Asura's file control and corrections are based on the newspaper's specifications for its print production, so it's similar in principle to Quickcut.

Alwan's CMYK Optimiser V3 combines preflighting, standardisation and optimisation for CMYK colour separations and data, minimising ink usage and optimising colour quality without compromising colour accuracy.

▼ OneVision claims its technology is more secure than Quickcut's because it controls, corrects and, if necessary, converts incoming files into the required format, rather than providing settings which could be modified resulting in substandard ad files reaching the workflow. Due to its downwards compatibility, features of higher PDF versions like CID fonts, layers or transparencies can be integrated/converted into, for example, PDF 1.3, PDF 1.2 or even PostScript 1 files. This new workspace platform also provides a browser view into the workflow from remote locations along with system log reports, for complete and current production status reporting in the future also to handheld devices such as an iPhone or an iPod Touch.

Microsoft's answer to PDF, its XML Paper Specification (XPS) hasn't yet had much impact on graphic arts production, but eventually it will. In anticipation of this, OneVision is adding XPS support to all of its products, alongside their existing TIFF, Postscript, PDF and EPS capabilities, plus the ability to convert XPS to these data formats so publishers won't have to change their workflows to support XPS. OneVision is the first preflight checking software company to be doing this publicly, but it certainly won't be the last.



OneVision announced a number of new additions to its flagship Asura product.

Workflow Management

This is because it's getting harder and harder to define where workflows start and stop. Matters are getting trickier as publishers stretch to incorporate new delivery channels. PDF is obviously the foundation of choice for the professional publishing community, but curiously little has yet been done to exploit PDF's capacity to support more exotic media, such as three dimensional rendering or moving images. We had rather hoped to see something along these lines at Ifra Expo but were disappointed. Most of what we saw was pretty much samey samey.

Polish developers Puzzleflow presented their eponymous PDF workflow technology, a suite of production planning modules for automating processes from file acquisition to RIPing. Based on open technologies and standards configured as independent processing engines, Puzzleflow can integrate, for example using JDF, with other systems to automate processes. These include file normalisation, preflight checking, adding variable data and image manipulation. Puzzleflow also provides web-based job tracking and at IfraExpo the company presented Puzzleflow Automator, which treats each production process as an independ- ▶

ent module that users can build into complete workflows. The components are described in XML to provide a production framework, within which files are managed using JDF. The tool suite is impressive ranging from ICC-based colour correction, spot colour processing, and screening and trapping modules.

Gradual, developer of the Switch workflow automation suite, showcased its new concept for cross vendor cooperative workflows. Crossroads is a marketing platform that lets participating suppliers demonstrate their technologies within a holistic system and was an interesting way of showing how disparate process automation technologies can cooperate.

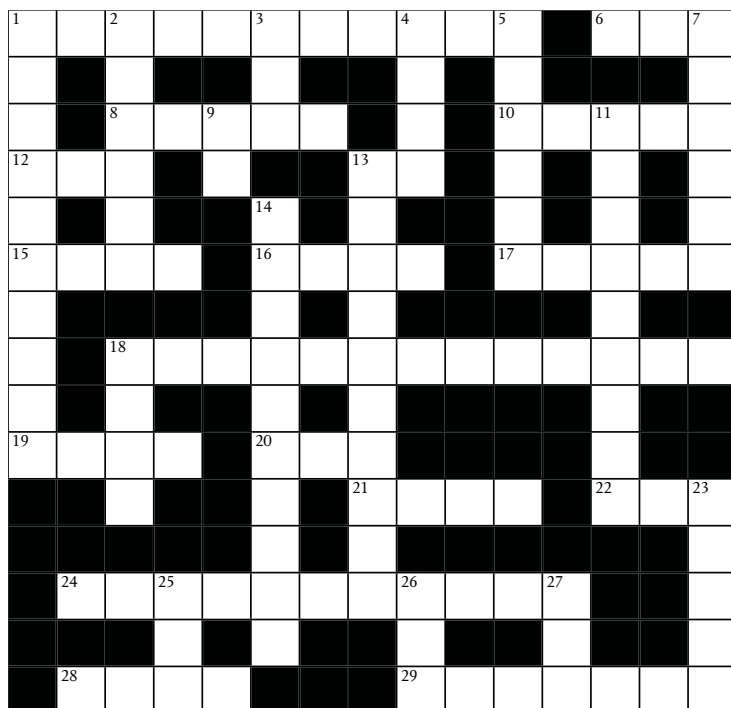
We left Vienna pondering a number of things, most importantly that predictions of the newspaper's imminent demise are at best ignorant and at worst premature. Fortunately sufficient numbers of newspaper publishers and developers have embraced the internet as a foundation for business growth. They are figuring out how to create compelling media products that bring together advertisers and readers. This is what IfraExpo is all about.

– **Laurel Brunner**



Graphic Arts Crossword Puzzle **Number 5**

If you get stuck, go to the [IGAEEF](#) website for some hints. For those of you that really get lost, answers will be in the next issue of Spindrift. **The answers for last issue's puzzle are on the next page.**



Across

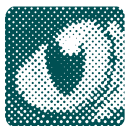
- 1 Plate technology requiring no chemistry. (11)
 6 Raster Image Processor. (3)
 8 For screening these are measured by the inch. (5)
 10 The basis of all creativity and new ways of doing things. (5)
 12 Lines Per Inch. (3)
 13 Information Technology. (2)
 15 What do we do and then repeat? (4)
 16 The committee responsible for all things JDF. (4)
 17 The opposite of loved. (5)
 18 Plate technology that nearly requires no chemistry. (9,4)
 19 The unit of measure for paper and board weights. (4)
 20 Massachusetts Institute of Technology. (3)
 21 The international membership organisation for newspaper publishers. (4)
 22 Images look rubbish when they have this kind of resolution. (3)
 24 We all should care about it, green and non-green alike. (11)
 28 The opposite of front. (4)
 29 Get ready and do this before you do anything else. (7)

Down

- 1 The industry that printers love the best. (10)
 2 When you're not offline this is your state. (6)
 3 Small to Medium sized Enterprises. (3)
 4 Earnings Before Income Tax. (4)
 5 Folded pages are held together with one or more of these when bound. (6)
 7 A press can only run if a job is approved or what? (6)
 9 The opposite of yes. (2)
 11 Newspapers fill their pages with this kind of content plus advertising. (9)
 13 The process of positioning pages onto a plate, ready for printing. (10)
 14 They are the companies and people responsible for colour management standards. (3,7)
 18 An edible shellfish. (4)
 23 Few proofing printers can print this colour. (5)
 25 Volatile Organic Compounds. (3)
 26 To calculate colour values from one space to another? (3)
 27 The opposite of bottom. (3)

Answers for Graphic Arts Crossword Puzzle Number 4

E				F		S			I		O			
L	E	N	T	I	C	U	L	A	R	P	R	I	N	T
E				L		S			O		E		A	
C		S	O	L	U	T	I	O	N	S		O	K	
T						A							E	
R	U	N			P	I	X	E	L	A	T	E	D	
O		I	T			N						P		
N	A	P		G	R	A	V	U	R	E		S	A	P
I						B								
C		L	I	Q	U	I	D	C	R	Y	S	T	A	L
		U				L						V		I
		L				I			V	I	S	I	O	N
S	O	L	V	E	N	T	S			G				E
	C		O			Y				A	R	E	A	S
	R		C				D	Y	E	S				



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